

IN THE CLAIMS:

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Please cancel Claims 26 to 29, 32 and 34 without prejudice to inclusion in a continuation application.

Claim 1 (Original) A training device for use in practicing the correct positioning of an electrical apical locator comprising:

- a) a support structure having a cavity;
- b) a tooth having a root canal and being located partially in said cavity so that a crown of said tooth is exposed and a root of said tooth is received in said support structure cavity during usage;
- c) a matrix securely holding said tooth in a fixed position in said support structure cavity; and wherein
- d) at least a portion of said matrix in the region of a tip of said root is an electrically conductive medium selected to impart an impedance that approximates an impedance associated with normal human tissue surrounding a root of a live tooth.

Claim 2 (Original) The device according to Claim 1 wherein:

- a) said support structure is an open topped enclosure

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suitable for holding by a user during usage.

Claim 3 (Original) The device according to Claim 1 wherein:

- a) said support structure is a manikin device
simulating a human jaw with the tooth mounted in
said jaw.

Claim 4 (Original) The device according to Claim 3 wherein:

- a) said jaw is a first jaw and said manikin includes
a second articulated jaw.

Claim 5 (Canceled)

Claim 6 (Previously presented) The device according to Claim 35
further including:

- a) a pin operably extending between the manikin
socket and sleeve so as to secure said sleeve in
said socket.

Claim 7 (Original) The device according to Claim 6 wherein:

- a) said pin is a thumb screw having a head adapted to
receive a connector of an apical position locator
electrode; said head being exposed during use and

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an opposite end of said screw being sized and shaped to engage said conductive medium.

Claim 8 (Original) The device according to Claim 1 wherein:

- a) all of said matrix is conductive medium.

Claim 9 (Original) The device according to Claim 1 wherein:

- a) said conductive medium is a first highly conductive matrix component that is located only in the vicinity of said root and a remainder of said cavity is filled with a second matrix component that is less electrically conductive than said first component.

Claim 10 (Canceled)

Claim 11 (Original) The device according to Claim 3 wherein:

- a) said manikin is at least partially electrically conductive between said device and a location for attachment to an apical locator.

Claim 12 (Original) The device according to Claim 1 in combination with:

- a) an apical locator having a probe for insertion

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into said tooth root canal and an electrode adapted to be placed in electrical connection with said electrically conductive medium.

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Claim 13 (Original) A teaching device for training dental students to locate a root canal apex in a tooth with an apical position locator; said device comprising:

- a) a manikin having at least one jaw that simulates a human jaw;
- b) said jaw having at least one socket therein located whereat a human tooth would be located in a human jaw;
- c) a tooth operably positioned in said socket such that a crown of said tooth extends outward from said socket and a root of said tooth is located in said socket; and
- d) a matrix securing said tooth in said socket; at least a first component of said matrix surrounding an apex of said tooth root being sufficiently electrically conductive so as to simulate the electrical conductance in human tissue surrounding a live tooth.

Claim 14 (Original) The device according to Claim 13 wherein:

- a) said jaw is a first jaw and said manikin has a second jaw articulated with said first jaw.

Claim 15 (Canceled)

Claim 16 (Previously presented) The device according to Claim 37 including:

- a) a pin to operably secure said matrix sleeve in said socket.

Claim 17 (Original) The device according to Claim 16 wherein:

- a) said pin is sized and positioned to have a tip end thereof engage said matrix first component and an opposite end adapted to be operably connected to a lead of an apical position locator.

Claim 18 (Original) The device according to Claim 13 wherein:

- a) said first component is located only in close proximity to an apex of the tooth root.

Claim 19 (Canceled)

Claim 20 (Original) The device according to Claim 13 wherein:

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- a) said matrix is essentially entirely composed of said first component.

Claim 21 (Original) The device according to Claim 13 wherein:

- a) said first component of said matrix includes at least 5% water by weight.

Claim 22 (Original) The device according to Claim 13 wherein:

- a) said first component of said matrix includes conductive metallic salt selected from the salts consisting essentially of sodium salts, calcium salts and mixtures thereof.

Claim 23 (Original) The device according to Claim 13 wherein:

- a) said first component of said matrix has a volume resistivity in the range from 10^{15} to 10^{-3} ohm/cm.

Claim 24 (Original) The device according to Claim 13 including:

- a) an apical position locator probe operably connectable to an apical locator device; said probe having a metallic central core with an exposed tip and having a shank covered by a non-

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conducting material.

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Claim 25 (Original) A teaching device for training dental students to locate a root canal apex in a tooth with an apical position locator; said device comprising:

- a) a manikin having at least one jaw that simulates a human jaw;
- b) said jaw having at least one tooth that has said jaw molded thereabout and being located whereat a human tooth would be located in a live human jaw;
- c) said tooth being operably positioned such that a crown of said tooth extends outward from said jaw and a root of said tooth is located in said jaw; and
- d) a matrix having a first component surrounding an apex of said tooth root and being sufficiently electrically conductive so as to simulate the electrical conductance in human tissue surrounding a live tooth; said matrix first component being adapted to be operably conductively connected to such an apical position locator.

Claim 26 (Canceled)

Claim 27 (Canceled)

Claim 28 (Canceled)

Claim 29 (Canceled)

Claim 30 (Canceled)

Claim 31 (Previously presented) The training aid according to
Claim 39 wherein:

- a) said electrical conductor comprises a metal plate
positioned to operably engage all of said inserts.

Claim 32 (Canceled)

Claim 33 (Canceled)

Claim 34 (Canceled)

Claim 35 (Previously presented) A training device for use in
practicing the correct positioning of an electrical apical
locator comprising:

- a) a support structure having a cavity;
- b) said support structure is a manikin device
simulating a human jaw with the tooth mounted in
said jaw;

- c) said cavity is a socket sized and positioned in said manikin at a location whereat a tooth would be located in a human jaw;
- d) a tooth having a root canal and being located partially in said cavity so that a crown of said tooth is exposed and a root of said tooth is received in said support structure cavity during usage;
- e) a matrix securely holding said tooth in a fixed position in said support structure cavity;
- f) a sleeve operably snugly received in said socket; said tooth and said matrix being located within said sleeve; and
- g) at least a portion of said matrix in the region of a tip of said root is an electrically conductive medium selected to impart an impedance that approximates an impedance associated with normal human tissue surrounding a root of a live tooth.

Claim 36 (Previously presented) A training device for use in practicing the correct positioning of an electrical apical locator comprising:

- a) a support structure having a cavity;
- b) a tooth having a root canal and being located

- partially in said cavity so that a crown of said tooth is exposed and a root of said tooth is received in said support structure cavity during usage;
- c) a matrix securely holding said tooth in a fixed position in said support structure cavity;
 - d) at least a portion of said matrix in the region of a tip of said root is an electrically conductive medium selected to impart an impedance that approximates an impedance associated with normal human tissue surrounding a root of a live tooth;
 - e) said conductive medium is a first highly conductive matrix component that is located only in the vicinity of said root and a remainder of said cavity is filled with a second matrix component that is less electrically conductive than said first component; and
 - f) a root sleeve sized and shaped to surround said first component and a tooth root apex, so as to hold said first component in position.

Claim 37 (Previously presented) A teaching device for training dental students to locate a root canal apex in a tooth with an

apical position locator; said device comprising:

- a) a manikin having at least one jaw that simulates a human jaw;
- b) said jaw having at least one socket therein located whereat a human tooth would be located in a human jaw;
- c) a tooth operably positioned in said socket such that a crown of said tooth extends outward from said socket and a root of said tooth is located in said socket;
- d) a matrix securing said tooth in said socket; at least a first component of said matrix surrounding an apex of said tooth root being sufficiently electrically conductive so as to simulate the electrical conductance in human tissue surrounding a live tooth; and
- e) a matrix sleeve adapted to be snugly received in said socket and to receive said matrix and tooth within.

Claim 38 (Previously presented) A teaching device for training dental students to locate a root canal apex in a tooth with an apical position locator; said device comprising:

- a) a manikin having at least one jaw that simulates a

- human jaw;
- b) said jaw having at least one socket therein located whereat a human tooth would be located in a human jaw;
 - c) a tooth operably positioned in said socket such that a crown of said tooth extends outward from said socket and a root of said tooth is located in said socket;
 - d) a matrix securing said tooth in said socket; at least a first component of said matrix surrounding an apex of said tooth root being sufficiently electrically conductive so as to simulate the electrical conductance in human tissue surrounding a live tooth;
 - e) said first component is located only in close proximity to an apex of the tooth root; and
 - f) a tooth root sleeve sized and shaped to surround and protect said matrix first component and said tooth root apex during usage.

Claim 39 (Previously presented) A dental teaching aid comprising:

- a) a support structure having a generally planar support plate;
- b) a plurality of inserts wherein each insert fits

- modularly on said support plate support structure and in abutting relationship to adjacent inserts;
- c) each insert mimics a portion of a human jaw;
 - d) each insert provides structure thereon that allows a dental student to practice at least one dental procedure;
 - e) one of said inserts provides training structures for conducting root canals; and
 - f) said support includes an electrical conductor that is adapted to electrically contact said root canal insert so as to conduct electricity between a lower end of a root of a tooth and said conductor.

Claim 40 (Previously presented) A dental teaching aid comprising:

- a) a support structure having a generally planar support plate;
- b) a plurality of inserts wherein each insert fits modularly on said support plate support structure and in abutting relationship to adjacent inserts;
- c) each insert mimics a portion of a human jaw;
- d) each insert provides structure thereon that allows a dental student to practice at least one dental procedure;
- e) one of said inserts provides training structures

for conducting root canals;

- f) each of said inserts includes an inward facing lip; and including
- g) a plate that operably overlaps each insert lip and is securable to said support so as to lock said inserts to said support.